

July 14, 2010

Abhilash Vijayan, Ph.D., PE, QEP
Air Resources Engineer
Planning & Technical Support Division
California Air Resources Board

Subject: Tahoe Metropolitan Planning Organization (TMPO) GHG Targets

Dear Abhilash;

Pursuant to your request, I have attached the TMPO Alternative Scenario Data Request and the EMFAC Input Files from our initial model runs conducted in March, 2010 (Kear, Cambridge Systematics). I have also attached additional information concerning the GHG reduction strategies from our adopted Regional Transportation Plan (Mobility 2030, August 2008) and a summary of TMPO modeling improvements and relative economic indicators of the recession, on the Tahoe Economy. Thank you for the opportunity to present this additional information.

Tahoe Economy

Based on TMPO estimates, the year-round population of the Tahoe Region decreased by 7,662 between the years 2000 and 2005. More recent estimates indicate that between 2005 and 2008 an additional 1,885 year round residents have left the area. The decline in year-round population is in large part attributable to a dramatic increase in residential home prices starting in 2001 resulting in many year-round residents to "cash out" their equity built up over previous years and move elsewhere. School enrollment has declined by 22 percent over the same time period resulting in the closure of two elementary schools and one middle school on the south shore. Future population based on Regional Plan growth assumptions has the Tahoe Region growing modestly at 1.6 percent annually. This shift in year-round residents has had a profound impact on travel and traffic volumes in the Tahoe Region, with Peak Month traffic volumes estimated to have fallen by 14.6 percent from the highest reported levels recorded in 1986, and Average Annual Daily Traffic (AADT) volumes decreasing by 4.1 percent from the highest reported levels recorded in 1991. Forecast Vehicle Miles Traveled (VMT) based on Regional Plan growth assumptions has the Tahoe Region growing modestly at an estimated half-percent per year.

Gaming provides a significant, but declining portion of the employment in the region. According to the Nevada Gaming Control Board, gaming employment has declined by 27 percent since 2001 on the South Shore. Additional information indicates that regional gaming revenue has declined by 19 percent (adjusted for

inflation) since FY 1999-2000, as California Indian Gaming has matured into viable competition. The strong growth in home prices discussed previously suggests that many of the region's workers have found it necessary to live outside the region in order to find affordable housing. This phenomenon is further collaborated by recent increases in hourly commute times at the regions' seven entry points.

Modeling Improvements

As part of their Regional Transportation Plan (Mobility 2008) TMPO staff developed a 2005 Base Year VMT modeling estimate. In 2009, TMPO staff developed and modeled a 2008 VMT estimate with the above mentioned updated demographic information to account for the recession. Based on a comparison between the two modeled years, The Tahoe Region experienced a 17,867 VMT reduction from the 2005 Base Year. Without benefit of analyzing the impact of this VMT change in EMFAC we would expect a corresponding reduction in GHG/capita numbers and targets.

In addition to the above model improvements it should be noted that in order satisfy the CARB 2035 forecast request, TMPO staff utilized its 2030 forecast and extrapolated to achieve the 2035 CARB VMT Request. As a result, the 2035 VMT does not recognize the regulatory and growth management controls of the region and should be considered a worse case estimate.

In March 2010, the TMPO contracted with Fehr& Peers to conduct a Pedestrian and Transit Orientated Development (PTOD) Mixed Use Trip Generation (MXDs) estimate for nine small urban areas around the basin. The results of this analysis indicates a trip generation internal capture of 18.3 percent from previous conditions that were not influenced by increased density, and a better mix of commercial and retail land uses.

Internal GHG (I-I)

As shown Figure 6.6, page 73 of the RTP, TMPO staff compiled a list of GHG strategies that are consistent with the overall Goals and Policies of the RTP. http://www.trpa.org/documents/docdwnlds/rtp_final.pdf). As indicated on (Attachment A) these strategies reflect a significant cost (\$203,688,500) of our financially constrained RTP representing an estimated 57 percent of the total cost of all RTP strategies in 2008 dollars. In order to account for these strategies and to remain consistent with the methodologies employed by the Regional Targets Advisory Committee (RTAC) we have developed GHG reductions estimates to account for these RTP strategies. Consistent with the methodologies documented by the Urban Land Institute, (Moving Cooler; Cambridge Systematics, July 2009, Analysis of Transportation Strategies for Reducing Greenhouse Gas Estimates) TMPO estimates that additional per capita reductions of 1.30%, 3.60% and 5.36% should be acknowledged for the 2005 Base, 2020 and 2035 Forecast Years. Based on our previous analysis of internal per capita carbon dioxide these reductions would equate to 7.0 percent internal

per capita reduction for the 2005 base year and 4.1 and 3.4 percent per capita reductions for 2020 and 2035 forecast years respectively.

Interregional GHG (X-I, I-X)

In September 2008, the RTAC recognized the importance of interregional travel and recommended that a Metropolitan Planning Organization ability to affect the emissions from these trips through land use and transportation strategies should be a key factor in determining how trip emissions are apportioned among MPO's. The Interregional travel associated with the presence of Lake Tahoe's scenic beauty and high levels of visitation draws a disproportionate amount of travel from other regions. Based on TMPO modeling estimates, interregional travel represents the greatest potential for per capita CO² reductions with per capita carbon dioxide currently estimated at 12.1, 11.9 and 12.9 percent over the 2005, 2020 and 2035 forecast years. Based on information contained on page 45 of the RTP http://www.trpa.org/documents/docdwnlds/rtp_final.pdf) potential exists to reduce GHG through the I-80 Capital Corridor Rail Service and Visitor Shuttle connections with the greater Sacramento area including the Sacramento International Airport. In order to account for the above strategies TMPO staff employed the same methodology documented in (Moving Cooler; Cambridge Systematics, July 2009, Analysis of Transportation Strategies for Reducing Greenhouse Gas Estimates). Based on the results of this analysis and shown on (Attachment A) additional interregional CO² reductions of .4 percent can be expected from the 2005 Base year with corresponding reductions of .75 and 1.1 percent in the forecast years of 2020 and 2035. Based on the results of the Internal and Interregional analysis shown on page 2 of Attachment A, the TMPO recommends the following percent per capita CO² targets for the Tahoe Region given the RTAC recommendation to exclude through trips CO² emissions and the shared responsibility of CO² emissions from interregional trips.

<u>2005</u>	<u>2020</u>	<u>2035</u>
Internal – 7.00%	Internal – 4.10%	Internal – 3.48%
<u>Interregional – 5.66%</u>	<u>Interregional – 4.89%</u>	<u>Interregional – 5.36%</u>
Total - 12.66%	Total - 8.99%	Total - 8.84%

*Note: Percent reduction estimates do not include emission reductions expected from Pavely Greenhouse Gas Vehicle Standards and Low Carbon Fuel Standards.

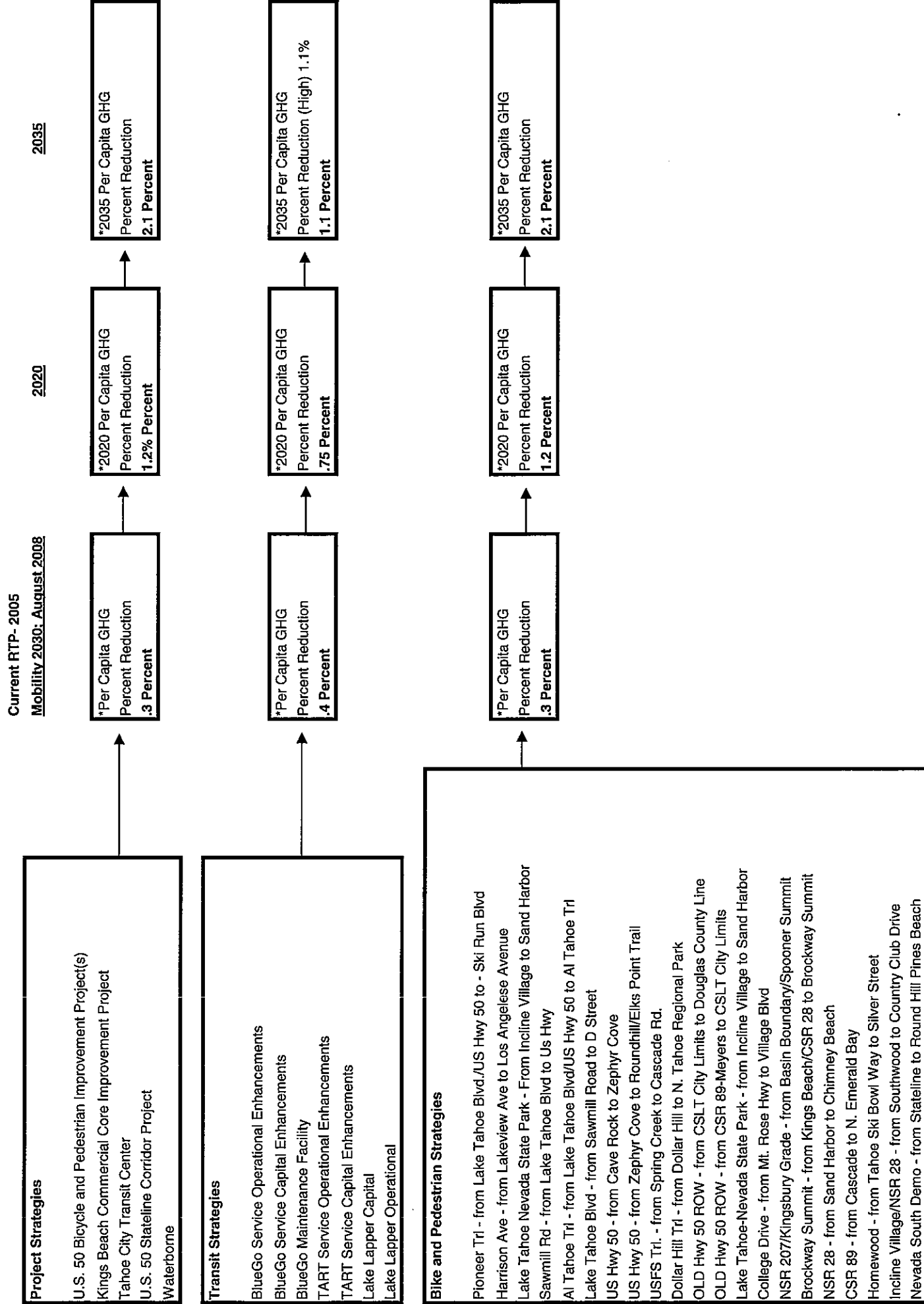
Thank you again for the opportunity to present this information. At your convenience we would like to discuss the results of this information and if you have questions please contact me at (775) 589-5289.

Sincerely

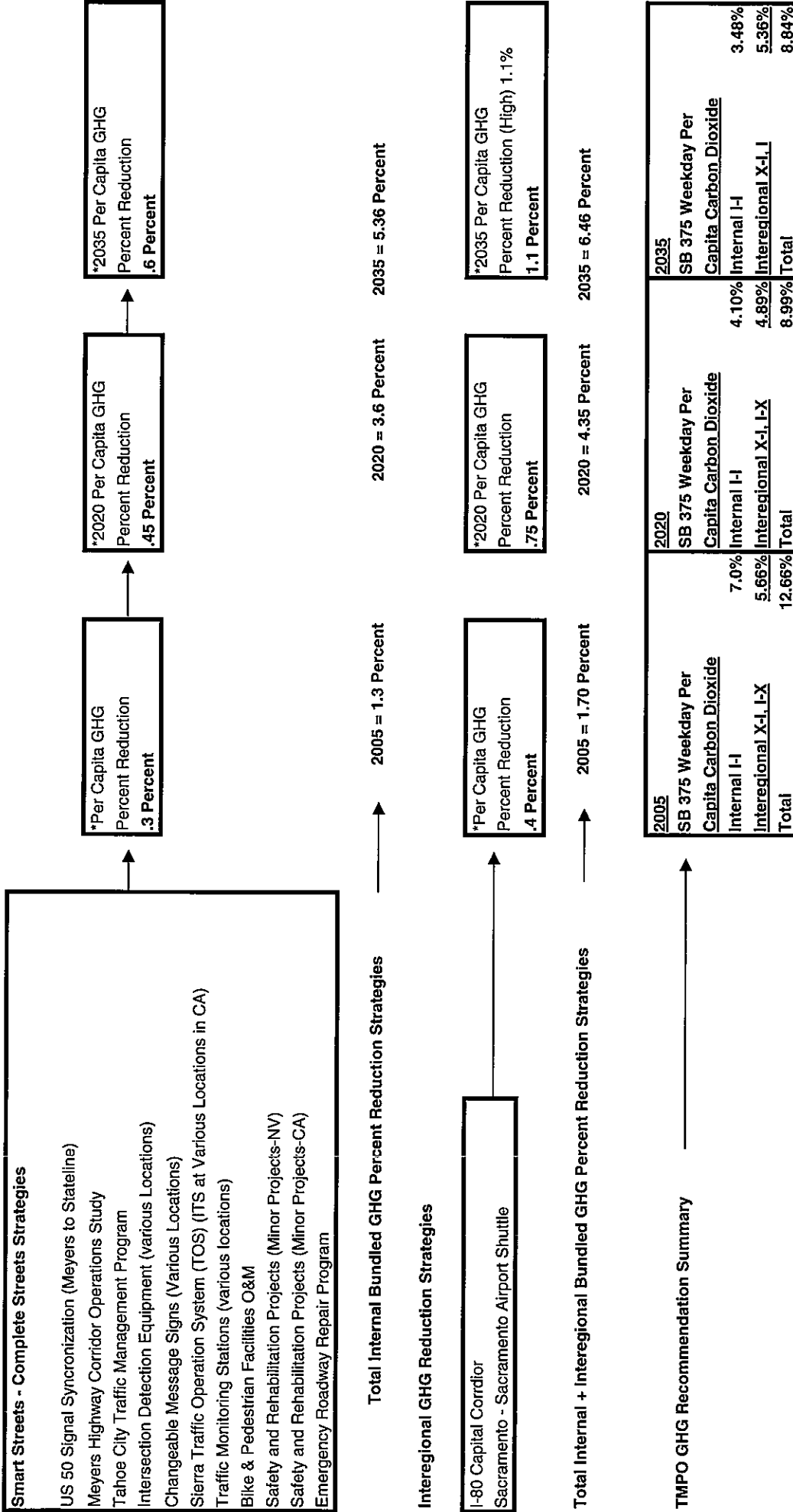
Keith Norberg
Transportation Planner

Attachment A

Tahoe Metropolitan Planning Organization (TMPO) GHG Reduction Strategies



Attachment A -Page 2



Note: Percent Ranges of Reduction GHG Strategies; Urban Land Institute, Moving Cooler, July 2009

Percent reduction estimates do not include emission reductions expected from Pavely Greenhouse Gas Vehicle Standards and Low Carbon Fuel Standards